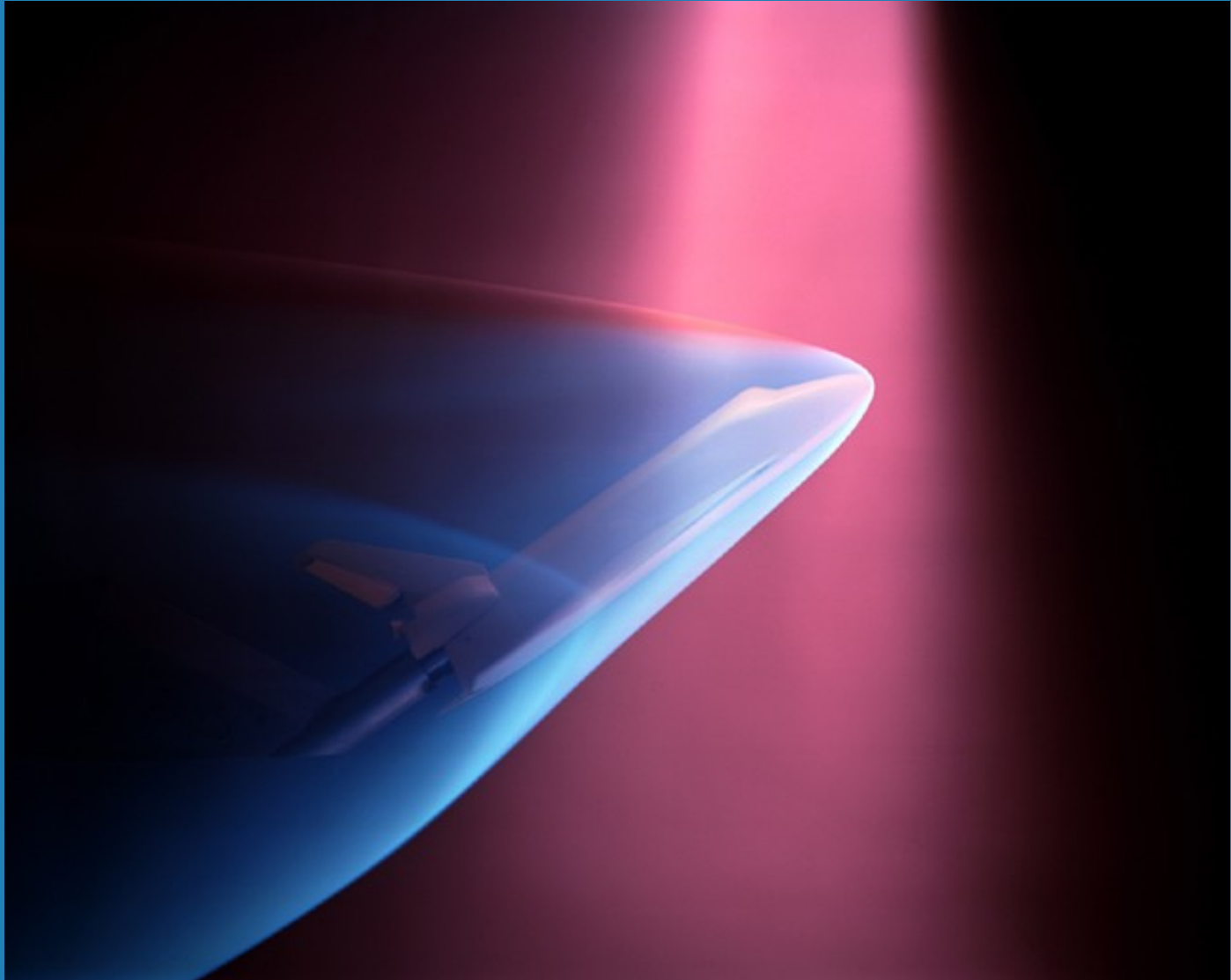
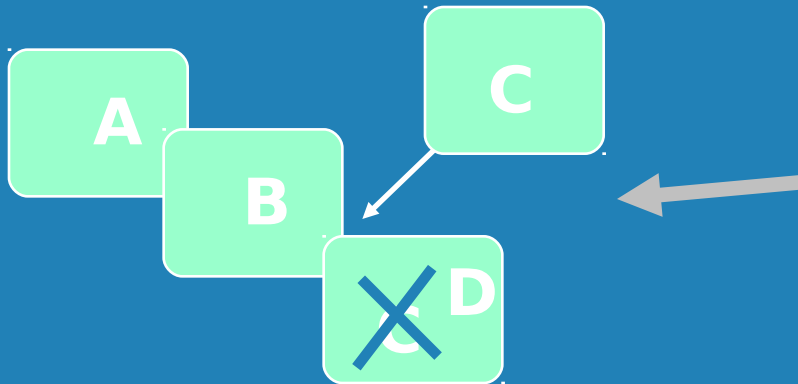
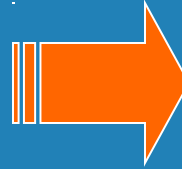


Creating Scientific Presentations



Presentations Have Several Advantages Over Documents

1. You Can Make Your Work Come Alive For The Audience



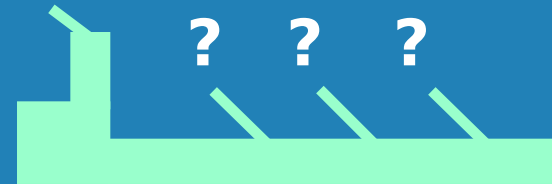
2. You Can Read Your Audience and React

3. As The Presenter, You Receive Instant Reaction To Your Work



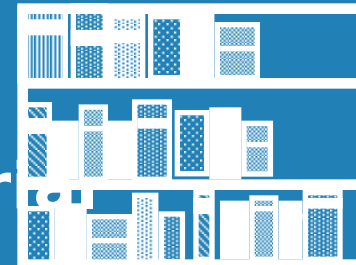
But, Presentations Also Have Several Disadvantages

1. The Speaker Has A Limited Chance To Catch Errors That They Make



**2. The Audience Can Not Reread Any Text.
They Have One Chance To Hear The Material**

3. The Audience Cannot Look Up Background Material or References



To Begin Preparing A Scientific Presentation Start By Analyzing Your Constraints

1. Audience
2. Purpose
3. Occasion



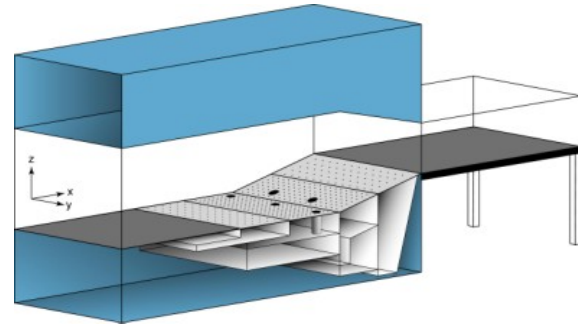
You Can Approach These Constraints As You
Would When Writing Your Document.
Be Sure You Address All Of The Important Issues
Of Each One As Previously Discussed.

In A Scientific Presentation, You Have To Juggle Four Aspects Of

Structure



Visual Aids & Slide Design



VT ECOL

AIP

Speech

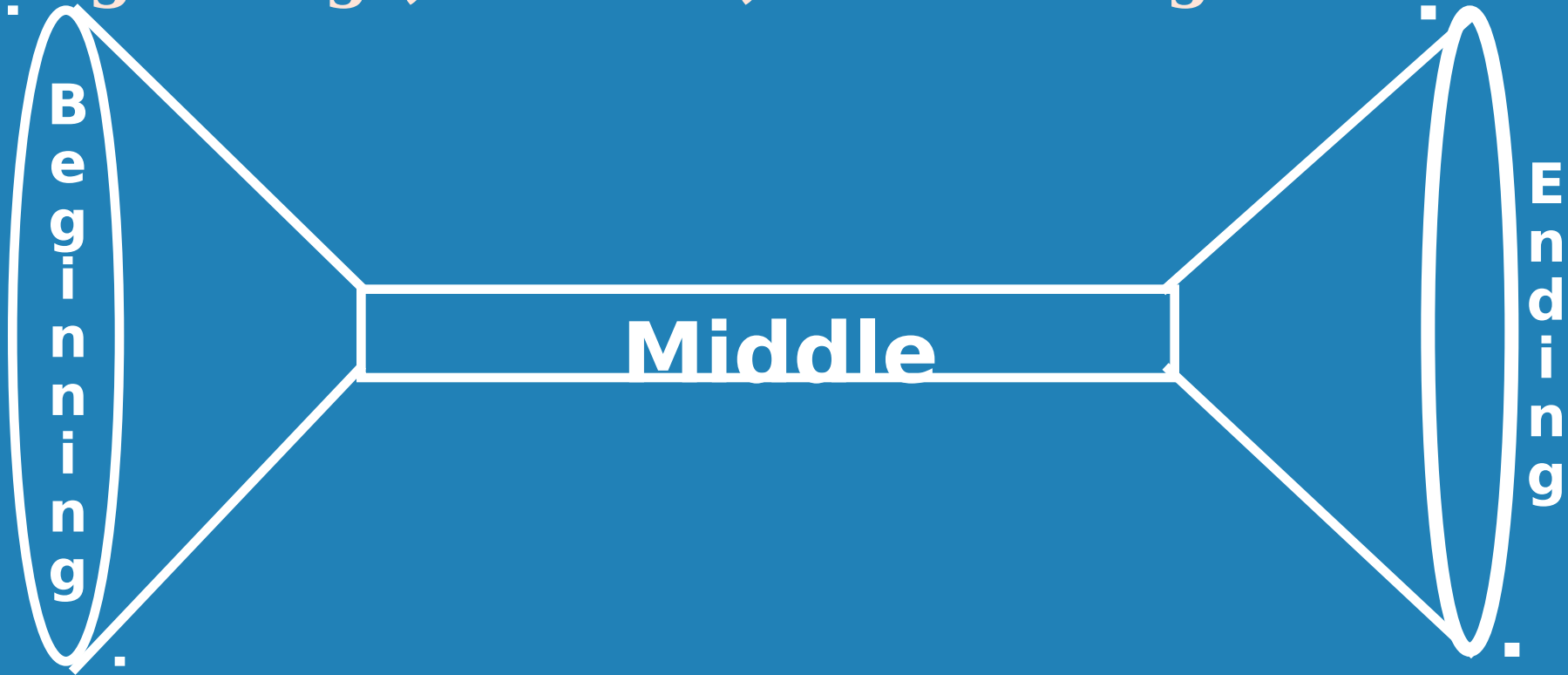


Delivery



I. Structure

As With Documents, The Structure Of Presentations Should Have Clear Beginnings, Middles, And Endings





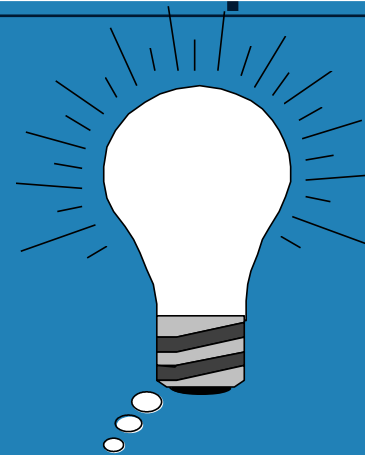
Beginnings Prepare The Audience For The Work To Be Presented



Defines Work

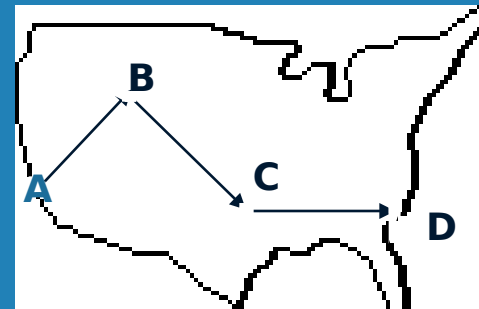
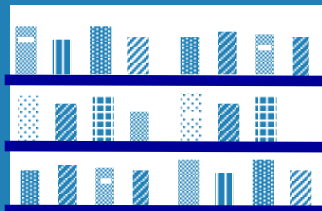
Shows Importance

$$Work = A + B$$

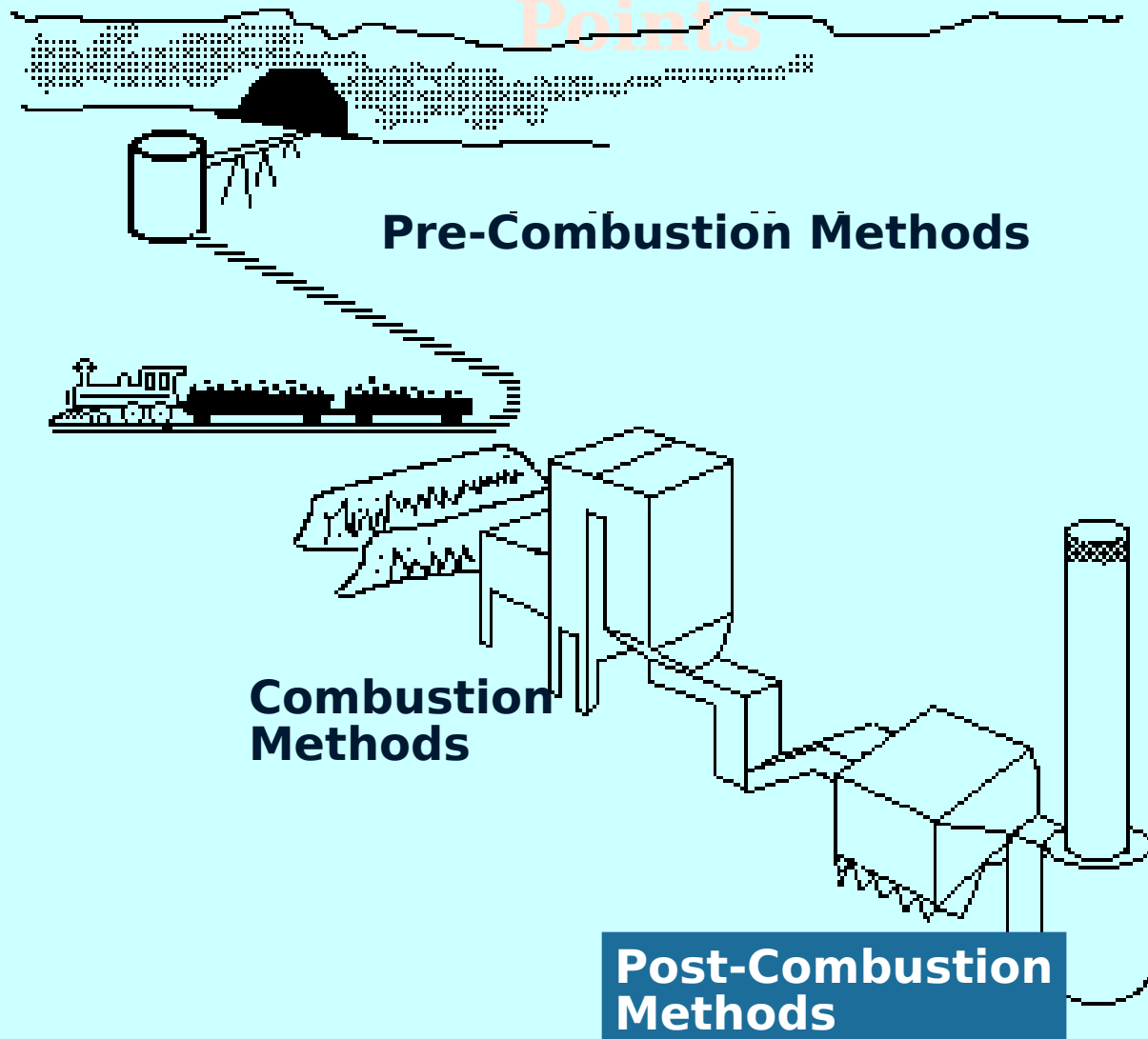


Gives Background

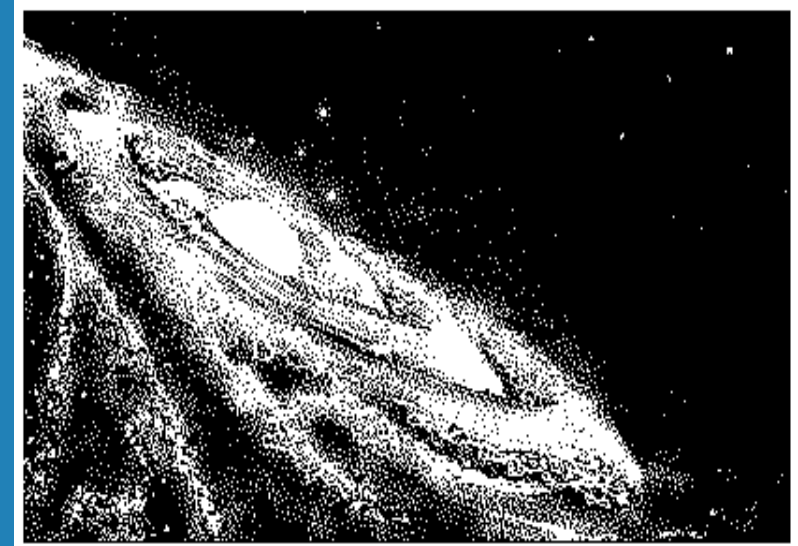
Maps Presentation




The Middle Presents The Work In a Logical Order And Has Smooth Transitions Between Points



The Ending Summarizes The Main Points And Places Them In The Big Picture

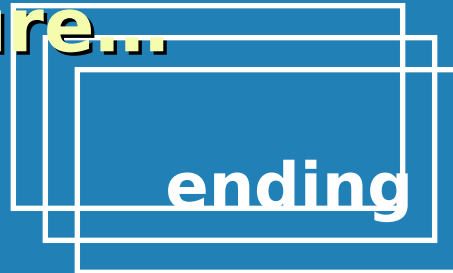
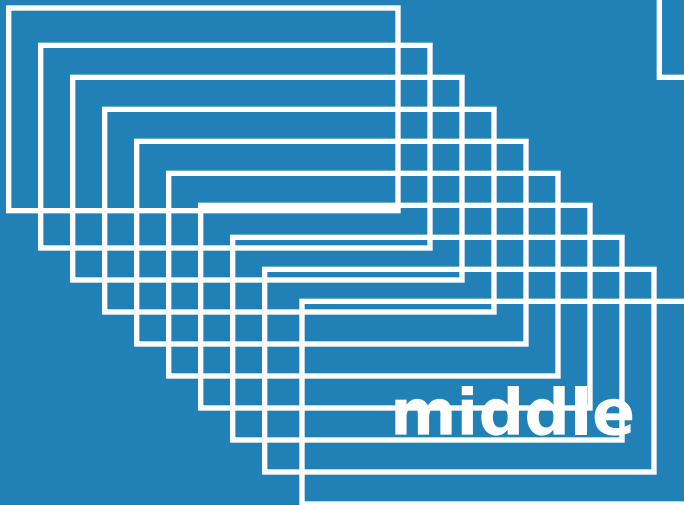


Point
Point  *Point*
Point



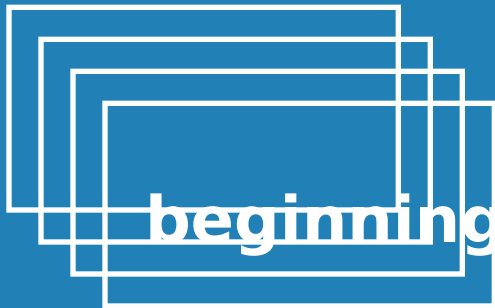
SUMMARY

Remember - In A Formal Presentation, The Slides Reflect The Structure...



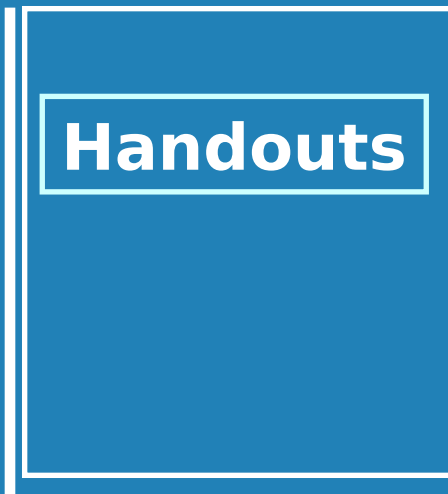
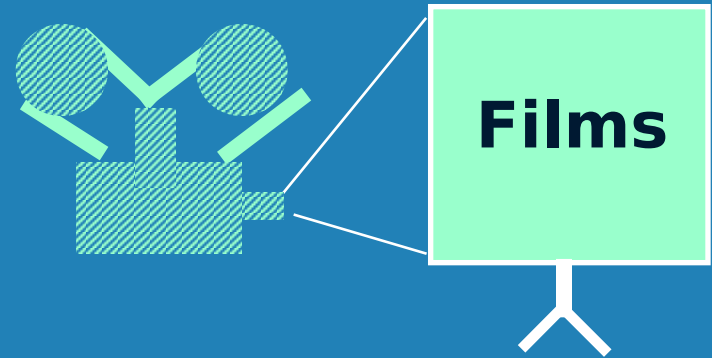
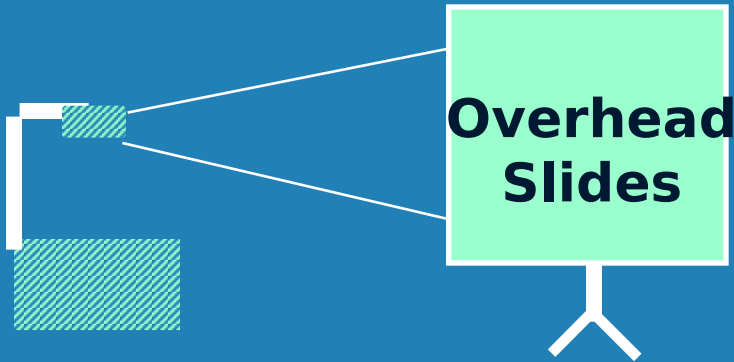
overall perspective
summary

logical order
good transitions

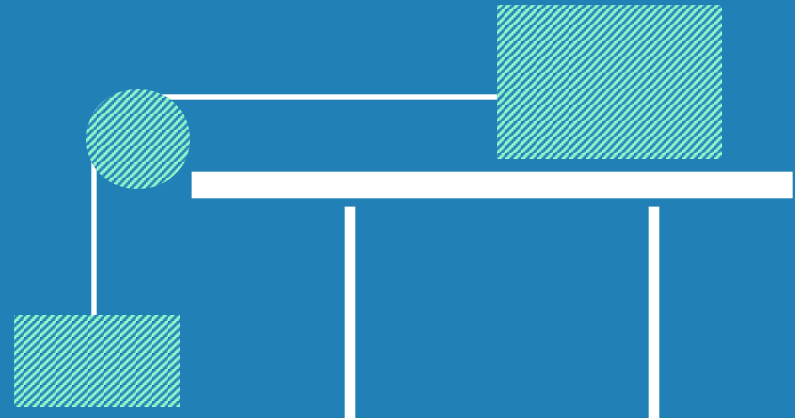


scope
importance
background
mapping

...And Your Scenery And Props Serve As Your Supporting Cast



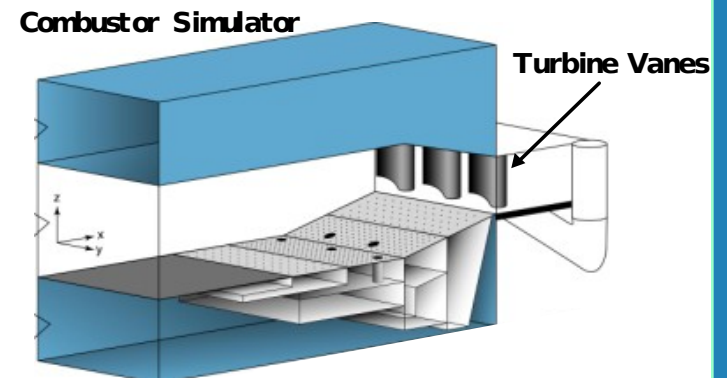
Demonstrations



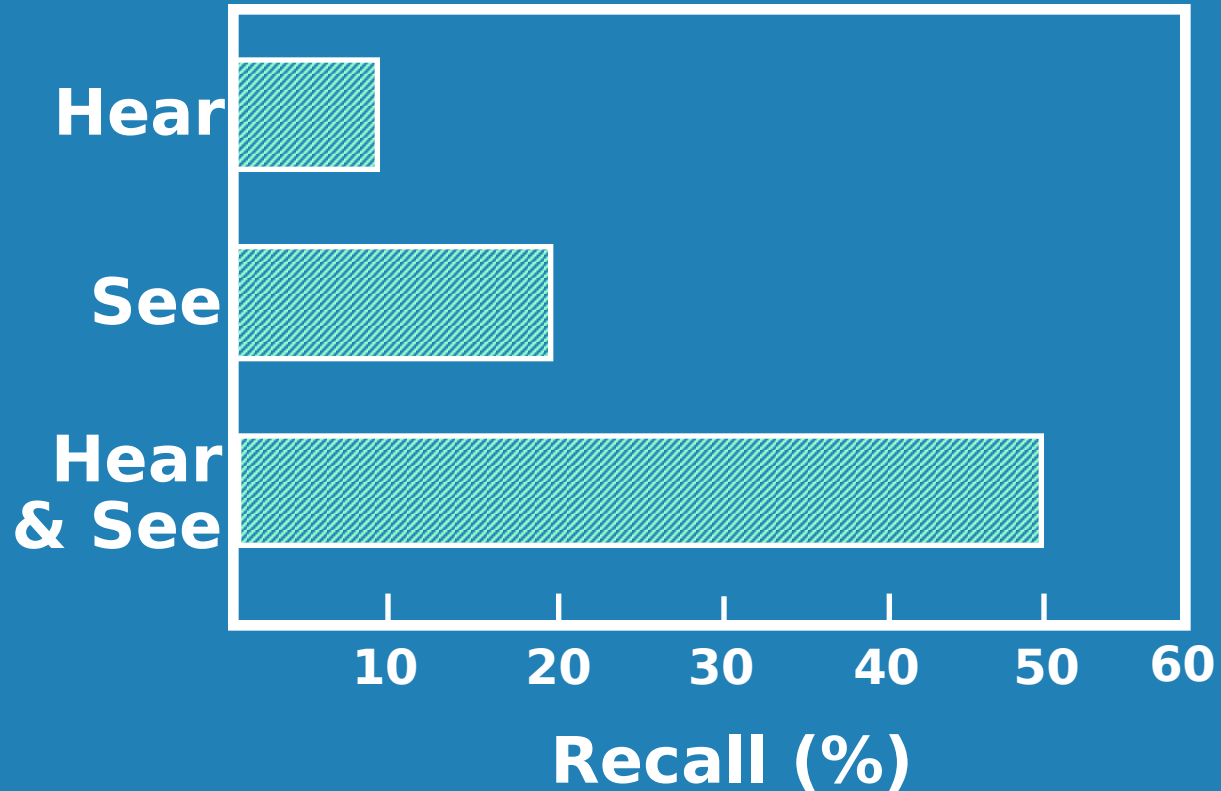
II. Visual Aids & Slide Design



Downstream of the combustor simulator is a section to test turbine vanes

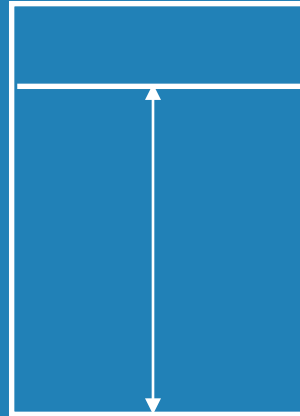


Audiences Remember More When You Use Well-Designed Slides



No Matter What Type Of Projection You Use, You Must Make Certain Decisions

What Format
To choose?
What Style Will
Work Best For My
Presentation?



What Information
To Include?
What Information
To Leave Out?



Choose A Format That Is Professional

Choose Legible Type

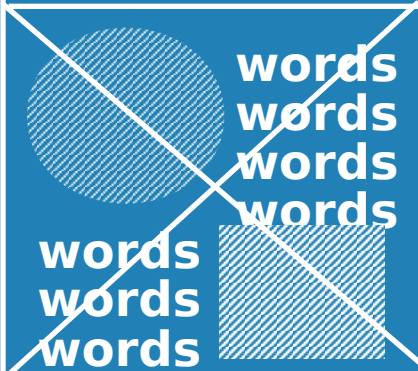


Times



~~***BOOK***~~
~~***ANTIQUA***~~

Avoid Clutter



words

Color Can Distinguish A Presentation

Color Affects How Fast The Audience Can Read

**The Color Combination That Is
Read Most Quickly Is Black On
Yellow...
But It Is Not Very Attractive To The
Eye**

Color Affects How Fast The Audience Can Read

**What Is Important Is That The
Combination Has Contrast—The One On
This Slide Does Not**

Color Affects How Fast The Audience Can Read

**Combinations Of Red, Green, And
Brown Are Difficult For Many
People to Read**

Color Can Affect The Emotions Of The Audience

**Avoid Having A Hot Color Such As
Red Or Orange As Your
Background Color**

Headline/Body Formats Orient The Audience.

You Can Use The Slide Wizard In PowerPoint For Different Formats

Headline

Use A Headline That Succinctly States The Idea Of The Slide

Body Supports
With Words

words words words words

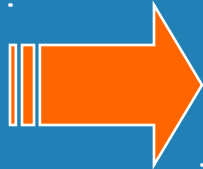
Body

Body Supports
With Images



Include Slides That Accent Important Details

Images



Neil Armstrong



The World Is Warming

Six warmest
years of the
century



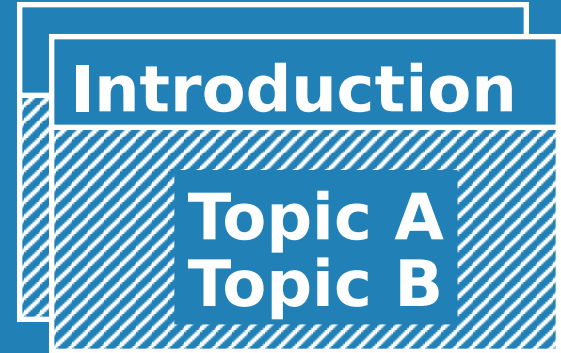
1988
1987
1983
1981
1980
1986



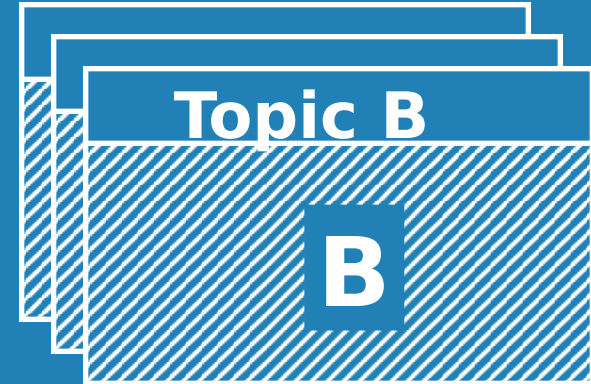
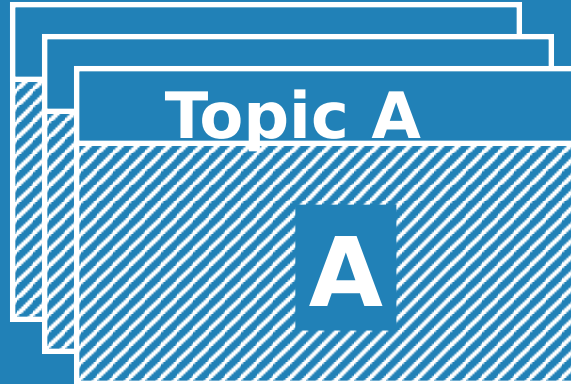
Results

Include Slides That Show Organization

Beginning



Middle



Ending



Exclude Details That The Audience Does Not Need Or Cannot Remember

Avoid Filler Information

Roentgen discovered x-rays in 1895. He found that a cathode-ray tube produced fluorescence in a distant platinum-barium-cyanide screen.

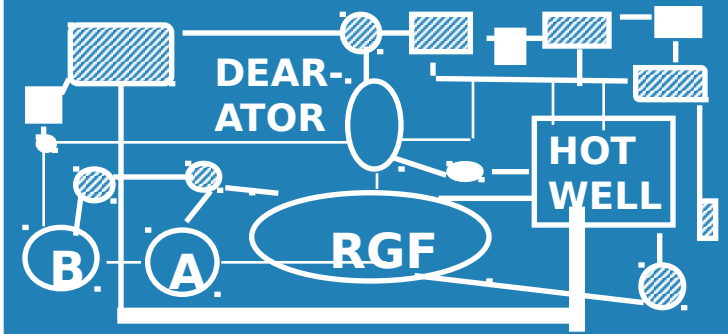
Avoid Complex Math

$$\frac{(x + 2^2) \ln x}{(x + 1^2) (x-1)}$$

Avoid Long Lists

- Corrosion
- Acid rain
- Toxic materials
- Pulsed combustion
- Energetic materials
- Pyrogenic materials
- Smog

Avoid Complex Images



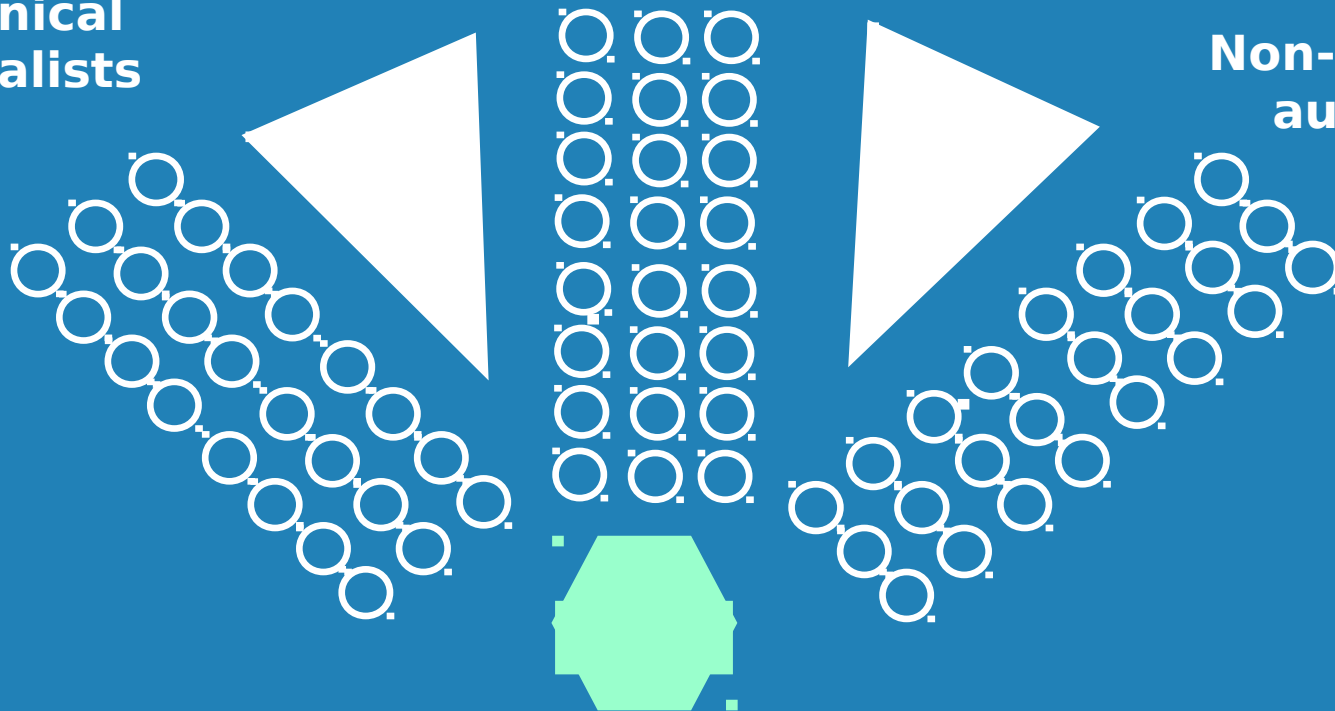
III. Speech

**Audience, Purpose, and Occasion
Determine The Appropriate Speech To
Give... Pick What Is Good For YOUR
Audience**

General technical
audience

Technical
specialists

Non-technical
audience



You Have Several Choices For How You Deliver Your Speech...

Pick The One YOU Are Most Capable Of

Memorizing the Speech

- + allows eye contact**
- difficult for long speeches**
- room for precision errors**
- no room for improvising**

Reading From a Text

- + ensures precision**
- does not sound natural**
- no room for improvising**
- hinders eye contact**

Winging It

- + sounds natural**
- has much room for error**

Speaking From slides

- + insures organization**
- + allows eye contact**
- + allows improvising**
- some room for error**

IV. Delivery

Delivery Is The Speaker's Interaction With The Audience

Voice

Movements

Stage Presence



When Delivering Your Speech...

- Try And Use Attention Getting Devices
- Watch The Audience For Their Reactions... If They Are Falling Asleep, Try And Be More Dynamic
- Don't Drone On... Change The Tone And Pitch Of Your Voice
- Remember... Enthusiasm Is Contagious. If You Are Excited, Your Audience Will Most Likely Be More Interested!



In Summary...

- Be Sure To Capitalize On The Advantages That A Presentation Offers
- Look At Your Constraints Before Starting To Make Your Presentation
- Follow The Rules Of Structure For The Beginning, Middle, And Ending
- When Designing Your Slides, Make Them Professional, Organized, And Easy To Read With Good Visualizations
- Chose The Type Of Delivery For Your Speech That Best Suits Your Presentation
- Keep Your Delivery Interesting And Energetic So That You Catch The Audiences Attention